

What is claimed is:

1. An image forming apparatus comprising:

a storing section for storing data in a storage medium;

an image forming section for forming and printing an image based on data;

a connector to which a portable communication terminal is connected;

a communication control section for controlling the portable communication terminal connected to the connector, and communicating with a server for managing data of various information on a network;

an obtaining section for obtaining desired first data and second data from the server; and

a first selecting section for selecting an output state of the first data and the second data obtained by the obtaining section; and

wherein the apparatus provides the first data and the second data in the output state selected by the first selecting section.

2. The apparatus of claim 1, wherein the first selecting section selects a first output state for storing the first data and the second data in the storage medium, and

the storing section stores the first data and the

second data in the storage medium.

3. The apparatus of claim 1, wherein the first selecting section selects a second output state for storing the first data in the storage medium and printing the second data in a predetermined print condition predetermined by the apparatus,

the storing section stores the first data in the storage medium, and

the image forming section prints the second data in the predetermined print condition predetermined by the apparatus.

4. The apparatus of claim 1, wherein the first selecting section selects a third output state for storing the first data in the storage medium and printing the second data in a desired print condition,

the storing section stores the first data in the storage medium, and

the image forming section prints the second data in the desired print condition.

5. The apparatus of claim 3, further comprising a post-processing section for performing post-processing to printed matter obtained by forming and printing the image based on the second data by the image forming section.

6. The apparatus of claim 4, further comprising a post-processing section for performing post-processing to printed matter obtained by forming and printing the image based on the second data by the image forming section.

7. The apparatus of claim 3, wherein the image forming section comprises a first image forming section and a second image forming section for forming images in different ways, and

the apparatus further comprises a second selecting section for selecting any one of the first image forming section and the second image forming section as the image forming section for forming and printing the image based on the second data.

8. The apparatus of claim 4, wherein the image forming section comprises a first image forming section and a second image forming section for forming images in different ways, and

the apparatus further comprises a second selecting section for selecting any one of the first image forming section and the second image forming section as the image forming section for forming and printing the image based on the second data.

9. The apparatus of claim 7, wherein the first image forming section forms the image according to at least an inkjet system, and the second image forming section forms the image according to at least an electro-photographic system.

10. The apparatus of claim 8, wherein the first image forming section forms the image according to at least an inkjet system, and the second image forming section forms the image according to at least an electro-photographic system.

11. The apparatus of claim 1, further comprising a third selecting section for selecting any one storage medium from an optical storage medium, a magnetic storage medium, an optical magnetic storage and a semiconductor storage medium as the storage medium in which at least one of the first data and the second data are stored by the storing section.

12. The apparatus of claim 1, further comprising a calculating section for calculating a charge for provision of the first data and the second data,

wherein the communication control section informs the server of the charge calculated by the calculating section by controlling the portable communication terminal.

13. The apparatus of claim 1, wherein the first data include music data, and

the second data include related information data comprising at least one of text data and image data, concerning the music data.

14. The apparatus of claim 1, wherein the storing section attaches electronic watermark data to at least one of the first data and the second data to be stored in the storage medium, when storing the at least one of the first data and the second data in the storage medium.

15. An image forming apparatus comprising:

a storing section for storing data in a storage medium;

an image forming section for forming and printing an image based on data;

a connector to which a portable communication terminal is connected;

a communication control section for controlling the portable communication terminal connected to the connector, and communicating with a server for managing data of various information on a network; and

an obtaining section for obtaining desired first data and second data from the server;

wherein the storing section stores the first data obtained by the obtaining section in the storage medium, and

the image forming section prints the second data obtained by the obtaining section in a predetermined print condition predetermined by the apparatus.

16. An image forming apparatus comprising:

a storing section for storing data in a storage medium;

an image forming section for forming and printing an image based on data;

a connector to which a portable communication terminal is connected;

a communication control section for controlling the portable communication terminal connected to the connector, and communicating with a server for managing data of various information on a network; and

an obtaining section for obtaining desired first data and second data from the server;

wherein the storing section stores the first data obtained by the obtaining section in the storage medium, and

the image forming section prints the second data obtained by the obtaining section in a desired print condition.

17. An image forming system comprising a server for managing data of various information on a network, and an image forming apparatus for communicating with the server through a portable communication terminal,

the server comprising:

a storage for storing data of various information therein;

a search section for desired first data and second data requested by the image forming apparatus through the portable communication terminal from the data of various information stored in the storage; and

a sending section for sending the first data and the second data searched by the search section to the image forming apparatus through the portable communication terminal,

the image forming apparatus comprising:

a storing section for storing data in a storage medium;

an image forming section for forming and printing an image based on data;

a connector to which the portable communication terminal is connected;

a communication control section for controlling the portable communication terminal connected to the connector, and communicating with the server;

an obtaining section for obtaining the first data and the second data sent from the server; and

a first selecting section for selecting an output state of the first data and the second data obtained by the obtaining section,

wherein the apparatus provides the first data and the second data in the output state selected by the first selecting section.

18. The system of claim 17, wherein the first selecting section selects a first output state for storing the first data and the second data in the storage medium, and

the storing section stores the first data and the second data in the storage medium.

19. The system of claim 17, wherein the first selecting section selects a second output state for storing the first data in the storage medium and printing the second data in a predetermined print condition predetermined by the apparatus,

the storing section stores the first data in the storage medium, and

the image forming section prints the second data in the predetermined print condition predetermined by the image forming apparatus.



20. The system of claim 17, wherein the first selecting section selects a third output state for storing the first data in the storage medium and printing the second data in a desired print condition,

the storing section stores the first data in the storage medium, and

the image forming section prints the second data in the desired print condition.

21. The system of claim 17, wherein the storage of the server stores at least music data and related information data including at least one of text data and image data concerning the music data,

the first data include the music data, and

the second data include the related information data concerning the music data.

22. An image forming apparatus for communicating with a server for storing a plurality of provided article data and accounts related to the plurality of provide article data respectively, through a portable communication terminal, the apparatus comprising:

a connector to which the portable communication terminal is connected;

a communication section for controlling the portable

communication terminal connected to the connector, and communicating with the server;

an input section for inputting an account;

a sending request section for requesting the server to send provided article data based on the account inputted by the input section through the communication section;

a receiving section for receiving the provide article data requested by the sending request section and sent from the server through the communication section; and

an image forming section for forming an image based on the provided article data received by the receiving section.

23. The apparatus of claim 22, wherein the image forming section comprises a plurality of image forming sections for forming images in different ways, and

the apparatus further comprises a selecting section for selecting an image forming section for forming the image based on the provided article data from the plurality of image forming sections according to a rate of full-color photograph data included in the provided article data received by the receiving section.

24. The apparatus of claim 22, wherein the account includes at least one of authentication information and identification information of the portable communication

terminal.

25. The apparatus of claim 22, the image forming section forms an electronic watermark image when forming the image based on the provided article data.

26. The apparatus of claim 22, further comprising a post-processing section for performing post-processing to printed matter of the image formed by the image forming section.

27. The apparatus of claim 26, wherein the post-processing section performs at least one of punch processing for punching a binding hole at a predetermined position of the printed matter, stapling processing for stapling the printed matter, trimmer processing for trimming the printed matter in predetermined size, pamphlet preparing processing for preparing a pamphlet, and biding processing for biding the printed matter simply, as the post-processing.

28. The apparatus of claim 23, wherein the selecting section selects an image forming section for forming the image according to an inkjet system from the plurality of image forming sections when full-color photograph data are included in the provided article data,

and an image forming section for forming the image according to an electro-photographic system from the plurality of image forming sections when full-color photograph data are not included in the provided article data.

29. An image forming system comprising a server and an image forming apparatus for communicating with the server through a portable communication terminal,

the server comprising:

a first storage for storing a plurality of provided article data and accounts related to the plurality of provide article data respectively therein; and

a sending section for sending provided article data corresponding to an account included in sending request information sent from the image forming apparatus through the portable communication terminal to the image forming apparatus, in reply to the sending request information,

the image forming apparatus comprising:

a connector to which the portable communication terminal is connected;

a communication section for controlling the portable communication terminal connected to the connector, and communicating with the server;

an input section for inputting the account;

a sending request section for sending the sending

request information including the account inputted by the input section to the server through the communication section;

a receiving section for receiving the provide article data sent from the server through the communication section; and

an image forming section for forming an image based on the provided article data received by the receiving section.

30. The system of claim 29, wherein the image forming section of the image forming apparatus comprises a plurality of image forming sections for forming images in different ways, and

the apparatus further comprises a selecting section for selecting an image forming section for forming the image based on the provided article data from the plurality of image forming sections according to a rate of full-color photograph data included in the provided article data received by the receiving section.

31. The system of claim 29, wherein the server further comprises:

a second storage section for classifying and storing a plurality of stored article data in a predetermined classified condition therein;

a determination section for determining an extract condition for every account stored in the first storage section; and

a storage control section for extracting stored article data satisfying the extract condition determined by the determination section, from the plurality of stored article data stored in the second storage section.

32. The system of claim 31, wherein the first storage section of the server stores an electronic mail address related to each of the accounts therein, and

the server further comprises a sending section for reading the electronic mail address corresponding to the account out of the first storage section when the storage control section completes extracting and storing the stored article data based on the account, and sending a predetermined electronic mail to the electronic mail address read.

33. The system of claim 29, wherein the account includes at least one of authentication information and identification information of the portable communication terminal.

34. The system of claim 29, the image forming section of the image forming apparatus forms an electronic

watermark image when forming the image based on the provided article data.

35. The system of claim 29, the image forming apparatus further comprises a post-processing section for performing post-processing to printed matter of the image formed by the image forming section.

36. The system of claim 35, wherein the post-processing section performs at least one of punch processing for punching a binding hole at a predetermined position of the printed matter, stapling processing for stapling the printed matter, trimmer processing for trimming the printed matter in predetermined size, pamphlet preparing processing for preparing a pamphlet, and biding processing for biding the printed matter simply, as the post-processing.

37. An image forming apparatus for communicating with a management apparatus for storing a plurality of electronic prepaid information and authentication information related to the plurality of electronic prepaid information respectively, and replaying to inquiry request for electronic prepaid information based on authentication information through a portable communication terminal storing authentication information, the image forming

apparatus comprising:

a connector to which the portable communication terminal is connected;

a communication section for controlling the portable communication terminal connected to the connector, and controlling communication with the portable communication terminal and the management apparatus;

a reading section for reading authentication information out of the portable communication terminal;

an inquiry request section for sending the authentication information read by the reading section to the management apparatus through the communication section, and requesting the management apparatus to inquire the electronic prepaid information based on the authentication information;

a receiving section for receiving the electronic prepaid information replied by the management apparatus requested to inquire by the inquiry request section through the communication section; and

an image forming control section for controlling whether to perform image forming processing or not on the basis of the electronic prepaid information received by the receiving section.

38. The apparatus of claim 37, wherein the electronic prepaid information include at least balance



information, and

the image forming control section determines a performable number of the image forming processing on the basis of the balance information and controls the image forming processing.

39. The apparatus of claim 38, further comprising:  
an operation input section for inputting desired performance number of the image forming processing; and  
an accounting section for accounting in a predetermined system according to an excess number of the desired performance number over the performable number, when the desired performance number inputted by the operation input section exceeds the performable number determined based on the balance information by the image forming control section.

40. The apparatus of claim 39, further comprising a display for displaying at least one of an instruction to pay a shortfall accounted in the predetermined system according to the excess number by the accounting section, and an instruction to input the desired performance number of the image forming processing by the operation input section so as to prevent the shortfall from occurring, when the desired performance number inputted by the operation input section exceeds the performable number determined

based on the balance information by the image forming control section.

41. The apparatus of claim 37, further comprising a use information sending section for sending use information according to the image forming processing controlled by the image forming control section, to the portable communication terminal.

42. An image forming system comprising an image forming apparatus, a management apparatus and a portable communication terminal,

the portable communication terminal comprising:

an authentication information storage for storing authentication information therein;

an authentication information sending section for sending the authentication information stored in the authentication information storage to the image forming apparatus;

a first transfer section for transferring electronic prepaid information sent from the management apparatus to the image forming apparatus; and

a second transfer section for transferring use information sent from the image forming apparatus to the management apparatus,

the management apparatus comprising:

an electronic prepaid information storage for storing a plurality of electronic prepaid information and authentication related to the plurality of electronic prepaid information respectively therein;

an electronic prepaid information sending section for sending electronic prepaid information corresponding to authentication information sent from the portable communication terminal to the portable communication terminal, in response to inquiry request for the electronic prepaid information based on the authentication information; and

a renewing section for renewing the electronic prepaid information stored in the electronic prepaid information storage according to the user information transferred from the portable communication terminal,

the image forming apparatus comprising:

a connector to which the portable communication terminal is connected;

an image forming control section for controlling whether to perform image forming processing or no on the electronic prepaid information transferred from the portable communication terminal; and

a use information sending section for sending use information based on the image forming processing to the portable communication terminal.

43. The system of claim 42, wherein the electronic prepaid information includes at least balance information, and

the image forming control section determines performable number of the image forming processing on the basis of the balance information, and controls the image forming processing.

44. The system of claim 43, wherein the image forming section further comprising: an operation input section for inputting desired performance number of the image forming processing; and

an accounting section for accounting in a predetermined system according to an excess number of the desired performance number over the performable number, when the desired performance number inputted by the operation input section exceeds the performable number determined based on the balance information by the image forming control section.

45. The system of claim 42, wherein the renewing section of the management apparatus renews the electronic prepaid information stored in the electronic prepaid information storage according to the use information transferred from the portable communication terminal, and renews the authentication information related to the

electronic prepaid information renewed,

the management apparatus further comprises an authentication information sending section for sending the authentication information renewed by the renewing section to the portable communication terminal, and

the portable communication terminal further comprises an authentication information renewing section for renewing the authentication information stored in the authentication information storage on the basis of the authentication information sent from the management apparatus.

46. The system of claim 45, wherein the portable communication terminal further comprises a purchase desired number sending section for sending a purchase desired number of the image forming processing performed by the image forming apparatus, to the image forming apparatus, and

the renewing section of the management apparatus renews the electronic prepaid information stored in the electronic prepaid information storage according to the purchase desired number sent from the portable communication terminal, and renews the authentication information related to the electronic prepaid information renewed.

47. An image forming apparatus for communicating

with a management apparatus for storing a plurality of electronic prepaid information and authentication information related to the plurality of electronic prepaid information respectively and replying inquiry request for electronic prepaid information based on authentication information, through a communication line, the image forming apparatus comprising:

- an operation section for inputting authentication information;

- a communication section for communicating with the management apparatus through the communication line connected to the image forming apparatus, when the authentication information is inputted by the operation section;

- an inquiry request section for sending the authentication information inputted by the operation section to the management apparatus through the communication section, and making the inquiry request for the electronic prepaid information based on the authentication information;

- a receiving section for receiving the electronic prepaid information replied by the management apparatus in response to the inquiry request made by the inquiry request section through the communication section; and

- an image forming control section for controlling whether to perform image forming processing on the basis of

the electronic prepaid information received by the receiving section.

48. The apparatus of claim 47, wherein the electronic prepaid information includes at least balance information, and

the apparatus further comprises a display for displaying a performable number of the image forming processing on the basis of balance information.

49. The apparatus of claim 47, wherein the electronic prepaid information includes at least balance information, and

the image forming control section determines a performable number of the image forming processing on the basis of balance information, and controls the image forming processing.